

(a) exposing a sample which may contain the target compound to a capture molecule or target molecule binding fragment thereof [capable of binding] which binds to the target molecule under conditions [suitable to form] whereby a capture molecule:target molecule complex is formed;

a 1 (b) adding to the capture molecule:target molecule complex, a nucleic acid moiety containing a detector molecule [capable of binding] which binds to the target molecule to form a capture molecule:target molecule:detector molecule complex;

(c) amplifying the nucleic acid moiety by PCR amplification; [and]

(d) adding a detectable non-primer probe which binds to the nucleic acid moiety; and

(e) quantitating or detecting the PCR amplified nucleic acid moiety using real time PCR during PCR amplification [a detectable non-primer probe capable of binding to the nucleic acid moiety];

wherein quantitating or detecting the PCR amplified nucleic acid moiety quantitates or detects the presence of the target compound.

~~In Claim 10, line 1, delete "target molecule" and insert therefor - -protein- -.~~

~~In Claim 15, line 1, delete "7, which can quantitate" and insert therefor - -1, wherein- -;~~

~~after "molecule" insert - -is quantitated- -.~~

~~In Claim 16, line 1, delete "which can detect" and insert therefor - -wherein- -;~~

~~after "molecule" insert - -is detected- -.~~

~~Please cancel Claim 21.~~

a 2 22. (Amended) A method for quantitating or detecting the presence of a target compound in a sample which may contain the target compound, comprising:

(a) exposing a sample which may contain the target compound to a capture antibody or target molecule binding fragment thereof [capable of binding] which binds to the target molecule under conditions [suitable to form] whereby a capture antibody:target molecule complex is formed;

(b) adding to the capture antibody:target molecule complex, a biotinylated nucleic acid moiety containing a detector molecule [capable of binding] which binds to the target molecule to form a biotinylated capture antibody:target molecule:detector molecule ternary complex in solution;

(c) immobilizing the biotinylated ternary complex to a streptavidin coated PCR tube;

(d) amplifying the nucleic acid moiety by PCR amplification; and

(e) quantitating or detecting the PCR amplified nucleic acid moiety using a detectable non-primer probe [capable of binding] which binds to the nucleic acid moiety [and] using real time PCR during PCR amplification;

wherein quantitating or detecting the PCR amplified nucleic acid moiety quantitates or detects the presence of the target compound.

23. (Amended) A method for quantitating or detecting the presence of a target compound in a sample which may contain the target compound, comprising:

(a) exposing a sample which may contain the target compound to a capture antibody or target molecule binding fragment thereof [capable of binding] which binds to the target molecule under conditions [suitable to form] whereby a capture antibody:target molecule complex is formed;

a2 (b) adding to the capture antibody:target molecule complex, an RNA or DNA aptamer detector molecule [capable of binding] which binds to the target molecule to form a capture antibody:target molecule:aptamer ternary complex;

(c) when the aptamer is an RNA detector molecule, reverse transcribing the RNA to DNA;

(d) amplifying the DNA aptamer or DNA obtained by step (c) by PCR amplification; and

(e) quantitating or detecting the PCR amplified DNA using a detectable non-primer probe [capable of binding] which binds to the DNA [and] using real time PCR during PCR amplification;

wherein quantitating or detecting the PCR amplified DNA quantitates or detects the presence of the target compound.

REMARKS

A new specification has been submitted because the text in the original specification was obliterated by holes punched at the top of the pages. Claims 1, 10, 15, 16, 22, and 23 have been amended to more definitively describe the present invention. Claim 21 has been cancelled. No question of new matter arises and entry of the amendments is respectfully requested.

Claims 1-20, and 22-23 are before the Examiner for consideration.